



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,160	09/22/2005	Matthew J. Thiele	20020026	7511
22500	7590	01/12/2009	EXAMINER	
BAE SYSTEMS			JUNG, MIN	
PO BOX 868			ART UNIT	PAPER NUMBER
NASHUA, NH 03061-0868			2416	
			MAIL DATE	DELIVERY MODE
			01/12/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/530,160	Applicant(s) THIELE ET AL.	
	Examiner Min Jung	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bray patent, US 6,618,392.

Bray discloses network transceiver using signal detect input to control modes of operation. Bray teaches automatically reconfiguring the physical layer device to support interface to a required Physical Media Dependant device (see Abstract). Specifically regarding claim 1 of the present invention, Bray teaches a system in which reconfigurable compute engines (Fig. 1) have input and output pins (pins, col. 1, line 65, and col. 5, lines 13, 17, 22, and 64) and are interconnected to perform a predetermined function (at least transmit/receive function) and in which each of the reconfigurable compute engine includes an application layer (at least the function of transmit/receive), a physical layer (physical device 10/100 PHY 28 shown in Fig. 1 and 2), and an interconnect fabric (shown in Fig. 6) comprising: a reconfigurable interconnect layer between the application layer and the physical layer, the interconnect layer being reconfigurable for defining a new function for the compute engine (col. 2, lines 19-31, and col. 5, lines 8-33). Bray fails to specifically teach that the interconnect layer is

Art Unit: 2416

reprogrammable for defining a new function. Bray teaches instead that SDI control mechanism operates to select a mode of transceiver operation, thereby automatically reconfiguring the physical layer device to support interface to a required PMD device (see col. 5, lines 8-33, and col. 1, lines 60-67). This reconfiguration is not the same as reprogramming per se. However, the objective of changing the mode of operation (defining a new function) by this reconfiguration is the same as the present invention, and the SDI control circuit switching modes in response to various combination of logic values can be broadly read as reprogramming since the reconfiguration (mode switching) occurs as a result of signal received. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to implement the teaching of Bray by specifically designing the SDI control mechanism shown in Fig. 6 to be reprogrammable for switching modes of operation.

Regarding claims 2-4, Bray shows that the pairs of engines are complementary having complementary pins which include pins having transmitting and receiving functions (See Fig. 1, transceiver 20 is shown with pins Tx +/- and Rx +/-).

Regarding claim 5, Bray teaches that the complementary pins function to transmit timing signals there between (col. 4, lines 30-37).

Regarding claim 6, Bray fails to teach that the timing signals include a strobe. However, a strobe is just an electrical pulse to indicate transfer of information, and can be utilized in any electrical communication environment. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to utilize a strobe to indicate timing in implementing the system of Bray.

Regarding claims 7-9, Bray fails to teach that the different pins support the transmission of packet switched signals, the transmission of circuit switched signals, and discrete signal level transmissions, respectively. Bray, instead, teaches supporting 10 Mb/s processing and 100 Mb/s processing. Although Bray's teaching of set of modes of operation is different from that of the present invention, the idea of reconfiguring to support different types of data processing/transmission is the same. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to implement the teaching of Bray with a different set of modes of operation to accommodate different needs of the user.

Regarding claims 10-13, Bray fails to teach that the predetermine function includes spatial processing, communications, signal intelligence, and jamming. Bray's different modes of operation include PECL mode, 100 BASE-TX or 10 BASE-T modes, loopback mode, and 100 BASE-FX modes (col. 5, lines 8-33). Thus, in Bray, depending on which mode of operation the device is in, different functions are carried out. Although the specific functions taught are different, it would have been obvious for one of ordinary skill in the art at the time of the invention to implement Bray's teaching to make modifications to provide different functions to meet the need of the network.

Regarding claim 14, Bray fails to teach a field programmable gate array. However, field programmable gate array is a well known semiconductor device that can be used to implement a logical function. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to utilize FPGA to make the teaching of Bray to take advantage of the programmable nature built in the chip.

Regarding claims 15-18, the method recited loosely correspond to the apparatus recited in claims 1-14. Therefore, Bray teaches the claims in the same manner as addressed above.

Response to Arguments

3. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2416

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Min Jung whose telephone number is 571-272-3127.

The examiner can normally be reached on Monday through Friday 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Min Jung/
Primary Examiner, Art Unit 2416